

COVER SHEET (PAGE 1 of 2)

May 1998 CALFED ECOSYSTEM RESTORATION PROPOSAL SOLICITATION

Proposal Title: Nelson Slough Wildlife Area Restoration Demonstration Project
Applicant Name: California Department of Fish and Game
Mailing Address: 1701 Nimbus Road, Rancho Cordova, CA 95670
Telephone: 916/358-2944
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Amount of funding requested: \$ 256,476 for 1.5 years

Indicate the Topic for which you are applying (check only one box). Note that this is an important decision: see page of the Proposal Solicitation Package for more information.

- | | |
|---|---|
| <input type="checkbox"/> Fish Passage Assessment | <input type="checkbox"/> Fish Passage Improvements |
| <input checked="" type="checkbox"/> Floodplain and Habitat Restoration | <input type="checkbox"/> Gravel Restoration |
| <input type="checkbox"/> Fish Harvest | <input type="checkbox"/> Species Life History Studies |
| <input type="checkbox"/> Watershed Planning/Implementation | <input type="checkbox"/> Education |
| <input type="checkbox"/> Fish Screen Evaluations - Alternatives and Biological Priorities | |

Indicate the geographic area of your proposal (check only one box):

- | | |
|---|---|
| <input type="checkbox"/> Sacramento River Mainstem | <input checked="" type="checkbox"/> Sacramento Tributary: <u>Feather River</u> |
| <input type="checkbox"/> Delta | <input type="checkbox"/> East Side Delta Tributary: <u> </u> |
| <input type="checkbox"/> Suisun Marsh and Bay | <input type="checkbox"/> San Joaquin Tributary: <u> </u> |
| <input type="checkbox"/> San Joaquin River Mainstem | <input type="checkbox"/> Other: <u> </u> |
| <input type="checkbox"/> Landscape (entire Bay-Delta watershed) | <input type="checkbox"/> North Bay: <u> </u> |

Indicate the primary species which the proposal addresses (check no more than two boxes):

- | | |
|--|---|
| <input type="checkbox"/> San Joaquin and East-side Delta tributaries fall-run chinook salmon | |
| <input type="checkbox"/> Winter-run chinook salmon | <input checked="" type="checkbox"/> Spring-run chinook salmon |
| <input type="checkbox"/> Late-fall run chinook salmon | <input checked="" type="checkbox"/> Fall-run chinook salmon |
| <input type="checkbox"/> Delta smelt | <input type="checkbox"/> Longfin smelt |
| <input type="checkbox"/> Splittail | <input type="checkbox"/> Steelhead trout |
| <input type="checkbox"/> Green sturgeon | <input type="checkbox"/> Striped bass |
| <input type="checkbox"/> Migratory birds | |

NELSON SLOUGH WILDLIFE AREA FLOODPLAIN HABITAT RESTORATION DEMONSTRATION PROJECT

Submitted by:

California Department of Fish and Game

in partnership with

Jones & Stokes Associates

and with the support of

The Audubon Society, State Reclamation Board, and California Department of Water Resources

II. Executive Summary

b. Project Description and Primary Biological/Ecological Objectives

A habitat restoration demonstration project is proposed at the Nelson Slough Wildlife Area (Wildlife Area) adjacent to the lower Feather River and Sutter Bypass. The Wildlife Area is located on previously farmed terraces formed by thick deposits of sandy hydraulic mining debris between the river levee and the main channel. A few low areas, such as sloughs, side channels, remnant borrow pits, and floodplain scour depressions, presently support healthy vegetation and provide excellent rearing habitat for juvenile salmon and spawning and rearing habitat for splittail. The extent of these habitats is limited, however, and the vegetation does not naturally regenerate or become established in most areas because the terraces are too high and dry. The frequency of inundation is too low and the depth to the water table is too great to provide fish-rearing habitat or allow natural establishment of vegetation. Additionally, many of the existing low areas do not drain completely to the main channel. Salmon, steelhead, and splittail are stranded in large numbers after high-water events. Excavation of topographically low benches and wetland-slough complexes is proposed on the terraces to provide additional aquatic, wetland, and riparian habitat and to reduce fish stranding.

The proposed project is one of four related projects proposed for the lower Feather River area. The others are a habitat restoration demonstration project at the Bobelaine Audubon Sanctuary, a land acquisition project, and a local watershed stewardship project. These projects will provide the foundation for subsequent projects involving property acquisition and design, funding, permitting, and implementation of ecosystem restoration activities.

c. Approach/Tasks/Schedule

Phase 1 involves developing a design for restoring floodplain function and providing connections between the main Feather River channel and off-channel water bodies, including Nelson Slough. Tasks include preparing a baseline inventory of habitat and sediment texture in the Wildlife Area, analyzing inundation frequency, designing specific locations where excavation would improve habitat, simulating flood conveyance impacts, and investigating several alternatives for economical disposal or reuse of excavated material (including construction of a setback levee). Phase 2 consists of completing environmental documentation, obtaining all necessary permits for the proposed restoration activities, and preparing plans and specifications for implementation. Phase 3 would consist of construction and monitoring. Phases I and II of the project would take 1 year; Phase 3 would take 2 or more years.

d. Justification for Project and Funding by CALFED

The project will explore several new aspects of habitat restoration that will serve as useful precedents for similar projects elsewhere along the lower Feather River and other Central Valley rivers. The project will 1) demonstrate the effectiveness of passive restoration of riparian and wetland vegetation through hydrologically based site design, 2) develop quantitative techniques for balancing restoration with flood-conveyance capacity, 3) investigate the feasibility of low-cost options for excavation and reuse of hydraulic mining debris, 4) determine the longevity and maintenance requirements for constructed side channels, and 5) pave the way for more routine permitting of future restoration projects. Fish species that would benefit from the project include chinook salmon (all four races), steelhead, and splittail. Threatened and endangered wildlife species that would benefit include giant garter snake, Swainson's hawk, yellow-billed cuckoo, and valley elderberry longhorn beetle (VELB). CALFED Bay-Delta Program (CALFED) funding is requested because of the multiple ecosystem objectives of the project, CALFED's willingness to fund design phases of projects, and because the project fits the objectives outlined in CALFED's Ecosystem Restoration Program Plan (ERPP) for the lower Feather River.

e. Budget Costs and Third-Party Impacts

This proposal requests funding for Phases I and II of the Nelson Slough Wildlife Area demonstration project. The estimated total cost of Phases I and II is \$256,476. Terrace excavation will provide increased flood-conveyance capacity to compensate for the flow-impeding effects of vegetation. Agricultural activities will not be displaced. Restoration activities that would affect lands outside the levees (e.g., setback levees) would be considered only with landowner support.

f. Applicant Qualifications

The California Department of Fish and Game (DFG) and The Audubon Society (Audubon) own and manage numerous properties along the lower Feather River floodplain in an effort to provide natural habitat. The Reclamation Board is responsible for floodway maintenance and balancing habitat objectives with flood conveyance requirements. Jones & Stokes Associates (JSA) has extensive experience with ecosystem planning and restoration along rivers in the Central Valley.

g. Monitoring and Data Evaluation

Natural colonization of vegetation in excavated areas, fish use of inundated floodplain habitat, and fish stranding will be monitored for 3-5 years following construction. The effectiveness of the project will be based on quantitative statistical comparisons between restored areas, preproject baseline conditions, and control sites elsewhere within the Wildlife Area.

h. Local Support/Coordination with Other Programs/Compatibility with CALFED Objectives

DFG and its partners have worked for years with other programs, including the Riparian Habitat Joint Venture and Partners for Wildlife, to protect and enhance habitat resources on the lower Feather River floodplain by purchasing and restoring properties. This project will enhance the integrity of the flood control and water supply systems and be compatible with water quality objectives.

III. Title Page

NELSON SLOUGH WILDLIFE AREA FLOODPLAIN HABITAT RESTORATION DEMONSTRATION PROJECT

Applicant:

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Participants/Collaborators: California Department of Fish and Game,
Jones & Stokes Associates, State Reclamation Board

July 2, 1998

IV. Project Description

a. Project Description and Approach

The hydrologic characteristics and aquatic/riparian ecosystem of the lower Feather River were greatly altered by sediment (debris) deposits from hydraulic mining and construction of large upstream reservoirs. Debris deposits raised the bed of the lower Feather River by 10-20 feet between Yuba City and the Sutter Bypass. Upstream reservoirs have decreased floodflows and the rate at which the river can remove the accumulated debris. The low-flow channel has incised itself through the debris and presently forms a "slot" bordered on both sides by steep banks rising 15-20 feet up to relatively flat terraces of sandy debris deposits. The depth to the water table is too great and the frequency of inundation too low to support natural regeneration of early succession riparian vegetation or provide rearing habitat for juvenile anadromous and resident fish. In addition, borrow pits and depressions in the flat terraces become inundated at high river stages, forming ponds that strand large numbers of juvenile chinook salmon, steelhead, splittail, and other fishes when water levels recede.

DFG and its partners propose to restore natural floodplain function to the terraces by excavating existing and new swales and low areas on terraces adjacent to the Feather River to form wetland and riparian areas with interconnecting sloughs. The wetland-slough complexes will add fish spawning and rearing habitat and eliminate existing areas of stranding in terrace depressions. New wetlands and sloughs will be connected to the river at stages lower than those that presently provide connections to these areas, thereby increasing the availability of floodplain habitat and providing escape routes to fish that now become stranded after high river stages recede. By expanding existing low areas instead of creating new ones, the amount of earthmoving required will be minimized. Setback levees will also be considered as a means by which to increase floodplain habitat.

Terrace excavation and setback levees also provide much-needed flood conveyance capacity. Conveyance capacity is critically limited along the lower Feather River, which suffered levee failures and severe flooding as recently as 1997. Flood control and habitat restoration must be jointly managed so that revegetation does not decrease flood conveyance capacity. Flow resistance created by increased inchannel vegetation must be offset by increased cross-sectional area. Hydraulics models will be used to estimate the net effect of excavation and vegetative growth on flood stage.

Because the cost of earthmoving can be prohibitive, this demonstration project will investigate the economic and regulatory feasibility of various options for disposing of excavated material in a manner that minimizes costs or achieves multiple benefits. Disposal options that will be evaluated include:

- processing sand for sale as aggregate,
- reinforcing existing levees,
- constructing a setback levee,
- spreading material on agricultural fields to improve drainage.

- constructing inchannel mounds parallel to flow,
- adding sediment to the main river channel, and
- filling existing scour holes in the Sutter Bypass.

The project will be an integral part of a multiphased, multiyear effort to restore environmental health to the lower Feather River ecosystem. The proposed project is one of four related projects concurrently proposed for the lower Feather River area. The others are a habitat restoration demonstration project at the Bobelaine Audubon Sanctuary, a land acquisition project, and a watershed planning project.

b. Proposed Scope of Work

The project would be conducted in three phases: an inventory and design phase, a permitting phase, and a construction and monitoring phase. This proposal is requesting funding for only Phases I and II.

Phase 1. Inventory and Design

The objectives of Phase I are to inventory site conditions, develop a demonstration project plan, evaluate flooding issues, and investigate debris-disposal options. Specific tasks for this phase include the following, all of which are essential and inseparable:

Task 1.1. Inventory Preproject Habitat. Existing vegetation in the Wildlife Area, including age class and vigor, will be mapped. Vegetation will be assessed according to habitat factors, including elevation, groundwater table, slope, inundation, and soil type. A baseline survey will be conducted of fish habitat use and stranding in Nelson Slough and other off-channel water bodies. (Note: in the event of drought, the project will proceed using 1998 sampling results as baseline data.) Test holes will be augered and sieve analysis conducted of subsurface materials at potential excavation areas. Mapped data will be stored, analyzed, and presented using Geographic Information Systems (GIS) software (ARCINFO and ARCVIEW). **Schedule:** First quarter. **Budget:** \$36,021. **Deliverable:** Baseline habitat inventory report and maps.

Task 1.2. Simulate Inundation Area, Frequency, and Duration. Existing aerial topographic coverage of the site will be obtained from the U.S. Army Corps of Engineers (ACOE) (contour interval: 2 feet). Stage records from the gage at Nicolaus and contouring software will be used to map existing inundation characteristics and design site topography that achieve more beneficial combinations of inundation season, duration, and frequency. **Schedule:** First 2 quarters. **Budget:** \$10,417. **Deliverable:** See Task 1.6.

Task 1.3. Design Site Restoration and Monitoring Program. Terrace elevations that optimize the inundation regime for fish rearing and regeneration of riparian vegetation will be defined. Specific areas for excavation will be selected. A with-project contour map for cut-fill calculations and hydraulics simulations will be prepared. The amount of new habitat created by the selected design will be calculated. A monitoring program that compares vegetative growth, fish use, and fish stranding in restored and unrestored areas will be developed. **Schedule:** First 2 quarters. **Budget:** \$19,960. **Deliverables:** See Task 1.6.

Task 1.4. Simulate With-Project Flood Elevation and Channel Stability. The with-project channel topography and roughness coefficient will be incorporated into a two-dimensional, finite-element hydraulics model of the lower Feather River that will be developed for a watershed stewardship project also being submitted for Category III funding. The with-project flood profile will be calculated and compared with existing conditions. If the regional model is not developed, normal-depth calculations will be used to estimate flood stage. With-project channel stability, based on velocity distributions, sediment texture, and channel planform, will be evaluated. **Schedule:** Third quarter. **Budget:** \$21,842. **Deliverable:** See Task 1.6.

Task 1.5. Refine Debris-Disposal Options. Potential partners will be contacted for debris-disposal options to assess level of interest, materials handling considerations, and cost. Potential partners include ACOE, local landowners, local aggregate-mining companies, and construction contractors. After initial contacts and option evaluation, the list will be shortened to the two or three most viable options. **Schedule:** First 2 quarters. **Budget:** \$21,377. **Deliverable:** See Task 1.6.

Task 1.6. Prepare Project Design Report. A report describing the project design and the results of Tasks 1-2 through 1-5 will be prepared and circulated among project cooperators and specifically designated agencies. Based on this report, DFG and CALFED will decide whether to proceed with Phase 2. **Schedule:** Third quarter. **Budget:** \$11,343. **Deliverable:** Project design report.

Phase 2. Environmental Documentation and Permitting

The objectives of Phase 2 are to complete environmental documentation and obtain all required state, local, and federal permits needed to begin construction.

Task 2.1. Prepare Revised Project Design and NEPA/CEQA and ESA documentation.

Appropriate environmental documents and biological assessments will be prepared that focus on issues related to special-status species, habitat, noise, air quality, flooding, and water quality. Regional issues related to habitat restoration are addressed in the CALFED Programmatic Environmental Impact Report/Environmental Impact Statement (EIS/EIR). **Schedule:** Fourth and fifth quarters. **Budget:** \$77,974. **Deliverables:** Environmental documents.

Task 2.2. Obtain Permits. Local, state, and federal permits required to implement the project will be obtained. It is expected that the critical permits will be a Section 404 Permit, a 1603 Streambed Alteration Agreement, ESA Section 10 permits, a National Pollution Discharge Elimination System (NPDES) permit, and possibly a conditional use permit from Sutter County. **Schedule:** Fifth and sixth quarters. **Budget:** \$42,571. **Deliverables:** Applications and permits.

Task 2.3. Develop Phase 3 Scope. Designs and specifications, a detailed cost estimate, and a schedule for construction and monitoring of the proposed restoration design will be developed and submitted for CALFED ERPP or Central Valley Project Improvement Act (CVPIA) funding. **Schedule:** Sixth quarter. **Budget:** \$14,970. **Deliverable:** Phase 3 proposal.

c. Location and/or Geographic Boundaries of the Project

The Wildlife Area is located on the north bank of the Feather River immediately upstream of the Sutter Bypass and is owned and managed by DFG. A map of the site is shown in Figures 1 and 2. The Wildlife Area occupies a terrace 500-3,800 feet wide between the levee and the low-flow channel along a 3.5-mile reach of the river. State Route 99 bisects the site on a bridge and causeway. Prior to its acquisition by DFG in 1989, portions of the area were farmed (see Figure 2). Several specific locations within the Wildlife Area that appear favorable for reconfiguration are labeled in Figure 2.

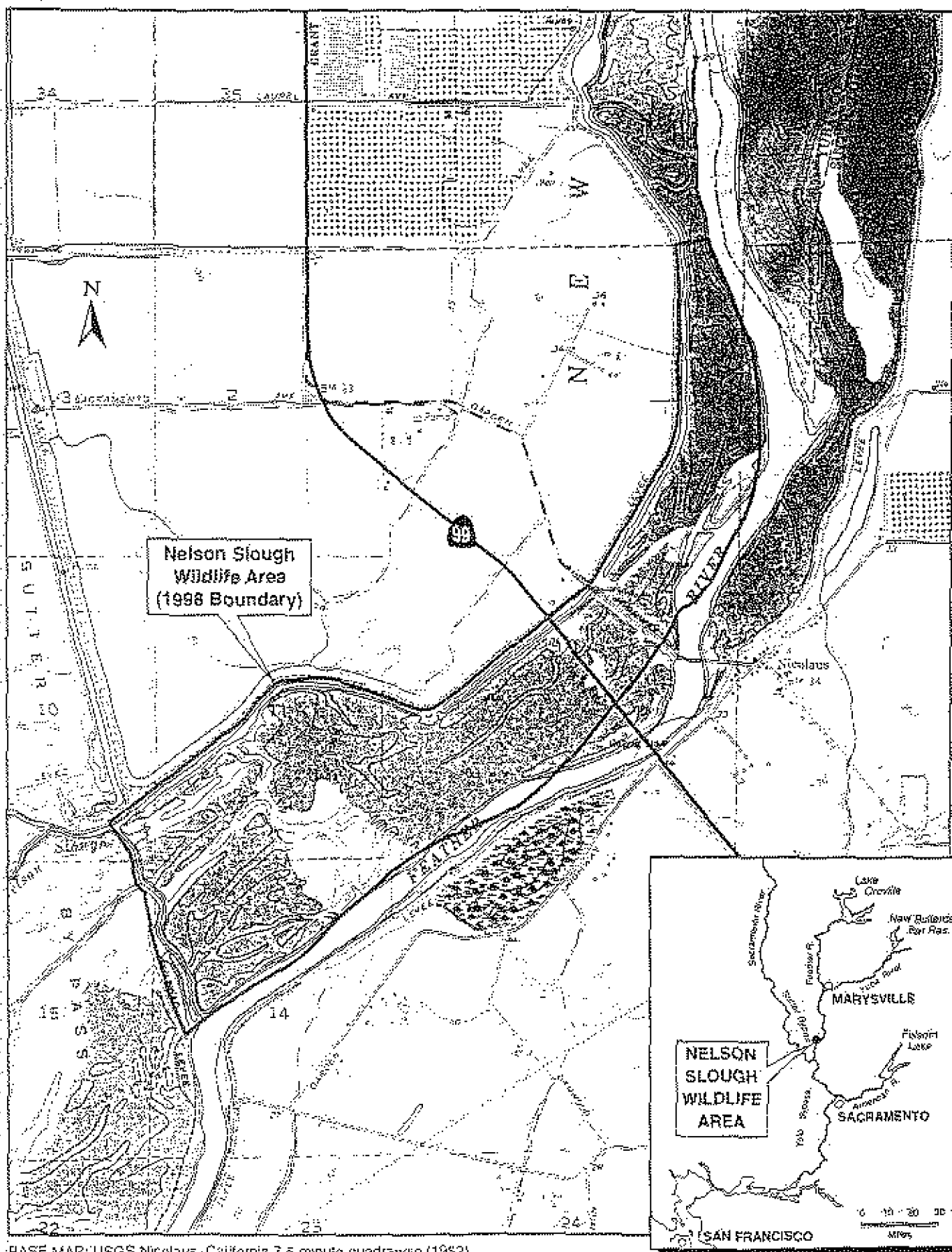
d. Expected Benefits

Stressors identified by CALFED that have adversely affected habitat conditions along the lower Feather River and that would be ameliorated by this demonstration restoration project include:

- **Hydrograph Alterations.** Upstream reservoirs have decreased floodflows and the frequency of terrace inundation.
- **Alteration of Channel Form.** This project would remove hydraulic mining debris in selected areas to create more natural floodplain topography and inundation frequency.
- **Prevention of Channel Meander.** Hydraulics modeling for this project will investigate channel stability and levee-protection issues.
- **Isolation of Side Channels and Tributaries.** This project will restore the connection of Nelson Slough and other isolated seasonal ponds and channels with the main channel.
- **Lack of Riparian Zone Regeneration Potential.** This project would create additional low areas suitable for natural vegetation regeneration.

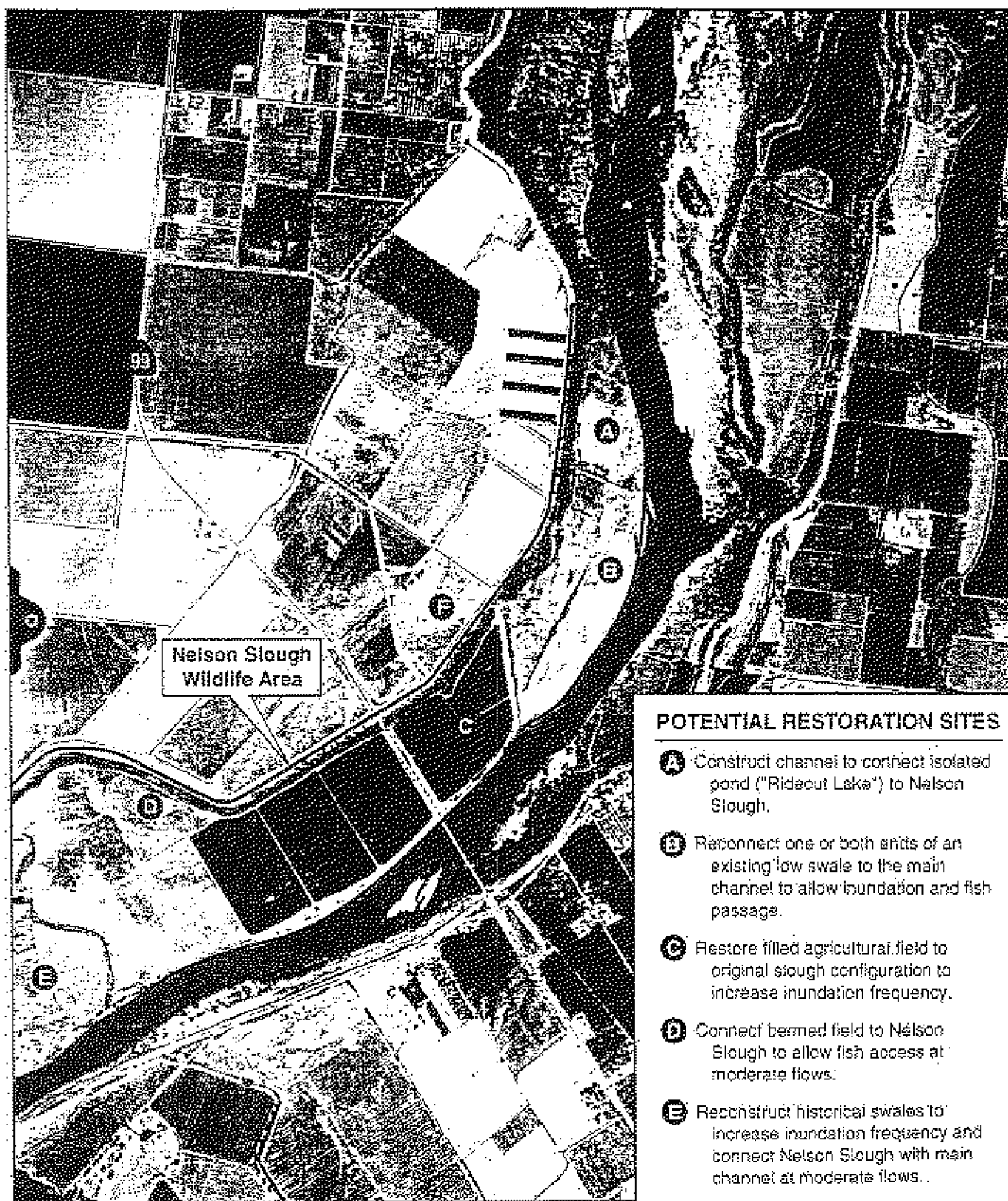
Benefits of the project include increased fish spawning and rearing habitat, decreased fish stranding, and increased area of wetland-slough complex and early succession riparian vegetation. The project would provide benefits for spring-run and fall-run chinook salmon and steelhead from the Feather, Yuba, and Bear River systems. Additional species that may benefit include winter-run and late fall-run chinook salmon, steelhead, and splittail. Preliminary surveys of the site in early 1998 found large numbers of juvenile chinook salmon and splittail and a few steelhead rearing in floodplain depressions and in Nelson Slough. Creation of additional low areas on the terraces would increase the extent of wetlands and cottonwood-willow riparian vegetation, which would benefit waterfowl, giant garter snakes, VELB, Swainson's hawk and other terrestrial wildlife.

This project will provide technical information and regulatory precedents that will benefit future restoration efforts. The project will 1) demonstrate the effectiveness of passive restoration of riparian and wetland vegetation through hydrologically based site design, 2) develop quantitative techniques for balancing restoration with flood conveyance capacity, 3) investigate the feasibility of low-cost options for excavation and reuse of hydraulic mining debris, 4) determine the longevity and maintenance requirements for constructed side channels, and 5) pave the way for more routine permitting of future restoration projects.



Jones & Stokes Associates, Inc.

Figure 1
Location of Nelson Slough Wildlife Area



Nelson Slough
Wildlife Area

POTENTIAL RESTORATION SITES

- A** Construct channel to connect isolated pond ("Rideout Lake") to Nelson Slough.
- B** Reconnect one or both ends of an existing low swale to the main channel to allow inundation and fish passage.
- C** Restore filled agricultural field to original slough configuration to increase inundation frequency.
- D** Connect bermed field to Nelson Slough to allow fish access at moderate flows.
- E** Reconstruct historical swales to increase inundation frequency and connect Nelson Slough with main channel at moderate flows.
- F** Install culverts under access roads to improve fish passage in Nelson Slough.



Date of Photo: July 14, 1987



Jones & Stokes Associates, Inc.

Figure 2
Aerial Photograph of Nelson Slough Wildlife Area
Two Years Prior to Purchase by DFG

e. Background and Ecological/Biological/Technical Justification

Need for project: existing conditions: The high terraces with their xeric environments along the Feather River channel are an unnatural artifact of hydraulic mining activities over a century ago. The sandy soil texture, deep water table, and low inundation frequency prevent natural establishment of phreatophytic riparian vegetation (Stromberg et al. 1991) and eliminate floodplain spawning and rearing habitat for fish (Sommer et al. 1997).

Comparison with other possible approaches to meet objectives: No alternative approaches have been identified to restore floodplain function, improve fish and wildlife habitats, and reduce fish stranding in the floodplain of the lower Feather River. Significant revegetation without excavation or a setback levee would increase flood risk and would not be permitted.

Basis for expected benefits: No planting of vegetation is planned because vigorous natural colonization has been observed in low spots on the terraces and along sloughs, and similar recolonization is expected to occur in and adjacent to newly recontoured wetlands and slough complexes. Cottonwood seedlings and young trees are present near all watercourses and floodplain depressions, along with seasonal and permanent marsh plants. Observations over the past winter indicated that juvenile fish moved from the river to the floodplain during high water to take advantage of the low-velocity aquatic habitat with abundant cover. Making existing habitats more accessible and adding new habitats is expected to provide more high-quality fish habitat on the floodplain. Extensive fish stranding in floodplain depressions and in Nelson Slough, as observed this past winter and spring, would be reduced or eliminated by simply providing an escape channel that remains open during low to moderate flows.

ERPP objectives addressed by project: The following objectives of CALFED's ERPP would be addressed by the proposed project.

- Restore hydraulic conditions (ERPP Vol 1, page 27);
- Maintain, improve, and restore natural stream meander processes (ERPP Vol 1, page 37);
- Modify channel and basin configuration to improve floodplain function (ERPP Vol 1, page 45);
- Maintain, improve, and restore nutrients (ERPP Vol 1, page 63);
- Restore riparian habitat along rivers (ERPP Vol 1, page 110);
- Ensure recovery of splittail (ERPP Vol 1, page 144);
- Restore four races of Sacramento chinook salmon (ERPP Vol 1, page 153);
- Ensure recovery of steelhead (ERPP Vol 1, page 160);
- Maintain and restore the distribution of resident fishes (ERPP Vol 1, page 172);
- Assist in the recovery of the western pond turtle and giant garter snake (ERPP Vol 1, page 229), both of which are common in the lower Feather River floodplain;
- Assist in the recovery of the Swainson's hawk (ERPP Vol 1, page 232);
- Assist in the recovery of the yellow-billed cuckoo (ERPP Vol 1, page 242);
- Maintain healthy populations of waterfowl, upland game birds, and neotropical migratory birds (ERPP Vol 1, pages 260, 262, and 264);

- Assist in maintaining populations of VELB (ERPP Vol 1, page 268);
- Increase the connection of upstream spawning habitat and rearing habitat with mainstem rivers (ERPP Vol 1, page 280);
- Reestablish or reactivate geomorphological processes in artificially confined channel reaches (ERPP Vol 1, page 284);
- Reduce the effect of invasive riparian plants (ERPP Vol 1, page 311); and
- Reduce catastrophic fires in floodplain riparian forests (ERPP Vol 1, page 334).

Relationship to CVPIA's Anadromous Fish Restoration Program (AFRP) objectives. The AFRP also seeks to restore spawning and rearing habitat for anadromous fish in Central Valley rivers and decrease fish mortality resulting from stranding. This project would achieve both of those objectives. One potential restoration action for this project—installing culverts under access road crossings that presently divide Nelson Slough into isolated segments—has been recommended by a CVPIA implementation group.

Durability of Restoration Improvements. This project would help restore a more dynamic and natural inundation and hydraulics regime to the Wildlife Area. Natural regimes are intrinsically variable; therefore, any particular channel, pond, or low terrace is likely to eventually be modified by scour and deposition during future high-flow events. However, the total area of these habitats is expected to remain relatively constant. Experience with artificial side channels for pump intakes along the river indicates that side channels with low-angle approaches to the main channel and with complete vegetative cover upstream do not tend to fill rapidly with sediment or require frequent excavation.

Current Status of Nelson Slough Preserve. DFG manages the preserve primarily for seasonal hunting. Restoration activities have been limited by lack of funds for planning, permitting, and implementation.

f. Monitoring and Data Evaluation

Vegetation growth will be monitored annually for 5 years following construction. Vegetation type and percent cover for randomly selected quadrants within excavated areas will be compared with baseline conditions and with data for control sites similar to the baseline site. Fish use of newly inundated floodplain areas and fish stranding in off-channel waterways will be monitored using mark-recapture techniques with electrofishing, purse seine, or other appropriate sampling methods. Fish numbers and density will be compared with preproject baseline data. Results will be compiled in annual data reports.

g. Implementability

Successful implementation of this demonstration project is likely because it has support from the landowner and neighbors, it will address the concerns of regulatory agencies, and there are strong prospects for low-cost construction. Restoration experiments are fully compatible with existing land use. Audubon owns the adjoining Bobelaine preserve and is a cosponsor of this project. At least one landowner outside the levees is reportedly willing to explore the possibility of a setback levee, and a related Category III project will be developing landowner and local agency consensus

on restoration issues all along the lower Feather River. Flood control agencies support the project because flood conveyance capacity will be maintained or increased. One aggregate producer expressed interest in a private-public partnership to cost-effectively restore habitat by processing and selling excavated material using a portable plant.

Citations

Sommer, T., R. Brown, and B. Herbold. 1997. Resilience of splittail in the Sacramento-San Joaquin estuary. *Transactions of the American Fisheries Society* 126:961-976.

Stromberg, J. C., D. T. Patten, and B. D. Richter. 1991. Flood flows and dynamics of Sonoran riparian forests. *Rivers* 2(3):221-235.

V. Costs and Schedule to Implement Proposed Project

a. Budget Costs

The costs for Phases I and II are shown by task in Table I. CALFED Category III funding is requested to cover these costs, which total \$256,746.

In-kind services provided by participating state agencies are not shown in Table I. These include staff time allocated for project management, data compilation, and assistance with restoration design and permitting. DFG has allocated approximately \$4,000 per year for this purpose. Assistance with hydraulics analysis and permitting by State Reclamation Board staff is valued at approximately \$10,000.

Construction costs for Phase 3 will be minimal if economic reuse of the excavated material is successfully arranged in Phases I and II. The most promising option for reuse is to form a public-private partnership with an aggregate producer and process the excavated material for sale as sand. Alternatively, state or federal flood control agencies might subsidize excavation as a means by which to obtain material for levee construction and repairs.

b. Schedule Milestones

Phases I and II will be completed in 18 months (6 quarters). Work during the first 3 quarters will focus on site evaluation, hydrology, restoration design, and feasibility analysis of debris-disposal options. Work during the last 3 quarters will focus on finalizing the project design, preparing environmental documents, and obtaining permits.

c. Third-Party Impacts

Potential flood-conveyance capacity impacts will be thoroughly evaluated and avoided through project design. A setback levee would be constructed only in cooperation with willing landowners. No land use conversion would result from the project; therefore, there will be no negative impacts on employment and local tax revenues. Potential impacts associated with excavation and various material disposal options (noise, traffic, water quality, etc.) be addressed and mitigated through the environmental documentation and permitting processes.

Table 1. Cost Estimate for Nelson Slough Proposal

Phase and Task Description	Direct Labor Hours	Direct Salary Totals	Overhead, G & A Expense, Fee	Subconsultant Contracts	Other Direct Costs	Total Cost
Phase 1: Inventory and design						
1.1 Inventory pre-project habitat	288	\$7,241.15	\$15,902.73	\$11,782.20	\$1,095.00	\$36,021.09
1.2 Simulate inundation area-duration-frequency	134	\$3,225.07	\$7,082.78		\$109.50	\$10,417.36
1.3 Design site restoration and monitoring plan	234	\$6,210.85	\$13,640.02		\$109.50	\$19,960.38
1.4 Simulate with-project flood elevation	160	\$3,750.39	\$8,236.45	\$9,307.50	\$547.50	\$21,841.84
1.5 Refine debris disposal options	214	\$5,489.20	\$12,055.17	\$3,285.00	\$547.50	\$21,376.87
1.6 Prepare design report	148	\$3,548.99	\$7,794.15			\$11,343.13
Phase 2: Environmental documents and permits						
2.1 Prepare environmental documentation	936	\$23,299.96	\$51,170.45	\$1,752.00	\$1,752.00	\$77,974.42
2.2 Obtain permits	440	\$12,154.69	\$26,693.65	\$2,628.00	\$1,095.00	\$42,571.35
2.3 Prepare Phase 3 scope	180	\$4,649.43	\$10,210.88		\$109.50	\$14,969.81
Totals	2,734	\$69,569.74	\$152,786.29	\$28,754.70	\$5,365.50	\$256,476.23

I-008861

VI. Applicant Qualifications

The proposed project team consists of DFG, the State Reclamation Board, and JSA. DFG will be the prime contractor. Subconsultants to JSA will include Mussetter Engineering for geomorphologic analysis and drilling and soil sampling contractors to be selected by competitive bid.

DFG and the State Reclamation Board are state agencies charged with managing fish and wildlife resources, analyzing flood hydrology and hydraulics, and maintaining floodways. DFG also owns the project site. These agencies have the capability for technical analysis, logistical support, and long-term site management, all of which will contribute to a successful project. Dale Whitmore, Associate Biologist and manager of the Nelson Slough Wildlife Area since 1989, will serve as DFG's project manager.

JSA is a leading environmental and natural resources management consulting firm based in Sacramento, California. Team members for the Nelson Slough project were selected from several of JSA's management groups, including the ecosystem restoration and planning, aquatic sciences, land conservation and management, and wetland permitting groups. All of the team members have extensive experience with hydrology, vegetation ecology, fish biology, and habitat restoration of Central Valley rivers and streams. Team members participated in developing information for the CVPIA and the CALFED EIS/EIR and are presently developing an ecosystem-functions model for ACOE's Sacramento-San Joaquin Comprehensive Study. Team members have worked for years on salmon and steelhead habitat-related projects on Butte Creek and the Feather, Yuba, and American Rivers. Qualifications of senior team members are given below.

Gus Yates will serve as JSA project manager and hydrologist. He is a hydrologist specializing in groundwater and surface-water flow modeling and habitat hydrology. Using mathematical modeling and graphical, statistical, and optimization methods, Mr. Yates evaluates hydrologic constraints and opportunities for aquatic, wetland, riparian, and upland habitats. He integrates information regarding climate, streamflow, hydrogeology, water quality, and water requirements of aquatic and riparian habitats to evaluate impacts of development projects on affected habitats and design habitat restoration projects.

Mr. Yates' recent work includes integration of technical information related to hydrology, geomorphology, vegetation ecology, and fish biology into a conceptual and mathematical ecosystem functions model for Central Valley rivers; an analysis of hydrologic requirements and flooding impacts of increased riparian vegetation along Putah Creek in the Sacramento Valley; an assessment of the probable effects of a proposed wastewater recharge project on a coastal lagoon in San Luis Obispo County, California; evaluation of water table and soil salinity conditions for restoration of riparian and wetland habitats along the Lake Elsinore outlet channel in Riverside County; and simulation of the interaction between groundwater pumping, lake levels, and lacustrine habitat around Lake Merced in San Francisco. He managed the development of the Willow Slough Watershed Integrated Resources Management Plan in Yolo County and a groundwater management plan for northern San Benito County and developed a computerized, searchable database of

hydrological/biological information related to riparian habitats for the National Park Service in Phoenix, Arizona.

Mr. Yates was certified as a professional hydrogeologist by the American Institute of Hydrology in 1992. Before joining JSA, he worked for 8 years as a groundwater hydrologist with the U.S. Geologic Survey (USGS). Mr. Yates received an M.S. in water science from the University of California, Davis, in 1985; and a B.A. in geology from Harvard University, Cambridge, Massachusetts, in 1979.

Warren J. Shaul will lead the analysis of fish habitat and stranding. He is a fishery biologist with more than 15 years of experience in fish population modeling, statistical designs and applications, impact analysis, and fishery management. He has developed methods to assess impacts from proposed water management changes on anadromous fishes in the Sacramento, American, Trinity, and Salinas Rivers, and in the Sacramento-San Joaquin Delta. These methods interface with hydrologic, water quality, and project operations and planning models such as the U.S. Bureau of Reclamation, DWR, Fischer, and Resource Management Associates models. He is thoroughly familiar with the life-history and environmental requirements of fishes throughout the Sacramento-San Joaquin River system, including the Sacramento-San Joaquin Delta and San Francisco Bay, and has an in-depth knowledge of environmental factors limiting fish abundance, distribution, and production in the Sacramento-San Joaquin system.

Mr. Shaul has completed several biological assessments for projects potentially affecting the winter-run chinook salmon, a state- and federally listed species. He maintains up-to-date information on the status of all threatened and endangered fish species and is knowledgeable of the efforts by state and federal agencies to restore species populations. Mr. Shaul has also developed methods to mitigate adverse effects of projects.

Mr. Shaul also participates in field data collection activities involving fish and invertebrate sampling, habitat characterization, instream flow assessment, and direct observation surveys. He received an M.S. in fisheries from Oregon State University, Corvallis, in 1984; and a B.S. in biology from Humboldt State University, Arcata, California in 1972.

John Ranlett will provide terrestrial habitat expertise for restoration design. He is a biologist with more than 10 years of experience in preparing wildlife habitat enhancement, restoration, and mitigation plans and conducting wetland and wildlife surveys in California. He prepares wetland restoration plans for compliance with Section 404 of the Clean Water Act, which integrate the needs of waterfowl and nongame wildlife into the habitat planning process. His design work includes riparian and oak woodland, permanent and seasonal emergent marsh, and vernal pool habitats. Mr. Ranlett operates a bird-banding station at an Audubon Society sanctuary located in a riparian forest along the Feather River in the Sacramento Valley. This station is part of the nationwide program to monitor avian productivity and survivorship that emphasizes long-term neotropical migrant songbird population monitoring through mist netting, banding, and point-count censusing.

Before joining JSA, Mr. Ranlett was principal restoration and wildlife biologist for his own company and senior biologist at Sugnet & Associates. He was responsible for coordinating and conducting environmental constraints analyses, including wetland delineations in seasonal and permanent wetlands and vernal pools; sensitive plant and wildlife surveys in annual grassland, seasonal wetland, vernal pool, woodland, and chaparral habitats; and general biotic surveys. He also was responsible for preparing technical reports and conceptual and detailed mitigation plans and provided assistance with Section 404 and Fish and Game Code Sections 1601-1603 permitting, supervised wetland habitat construction, and conducted subsequent mitigation monitoring. Mr. Ranlett received a B.S. in conservation biology from California State University, Sacramento, California in 1985.

David M. Ceppos will be responsible for landowner contact and permitting elements of the project. He is a registered professional landscape architect who specializes in preparing ecological opportunities and constraints analyses for large, multiuse facilities and government installations and is skilled in facilitating public participation in planning projects. Mr. Ceppos has managed several large projects serving a variety of private- and public-sector clients. He is experienced in a variety of environmental assessment techniques, including analyzing remote sensing data and conducting GIS analysis. He will also be the principal facilitator for the lower Feather River watershed stewardship project.

Before joining JSA, Mr. Ceppos was employed as a project manager and lead planner with PRC Environmental Management, Inc., in both its Sacramento, California and Atlanta, Georgia offices and was responsible for facilitating and coordinating committee meetings for environmental policy planning. His duties included managing the Mojave Desert Initiative for the Department of Defense (California); facilitating public planning workshops for the U.S. Environmental Protection Agency - Government of Mexico "Border XXI" Environmental Initiatives Program; managing preparation of installation ecological field studies and cleanup investigations for the Naval Communication Station in Stockton, California; and managing land use planning efforts for Naval Air Station Moffett facilities in the Sunnyvale and Mountain View, California area. He also managed a Cost Recovery and Enforcement Support team for EPA Region 4. Mr. Ceppos has also conducted ACOE wetland delineation training seminars, prepared many landscape architectural plans, and monitored landscape construction projects.

Mr. Ceppos received his B.A. in landscape architecture from the University of Florida, Gainesville, and has 11 years of experience in environmental planning and ecological assessment, wetland delineation, land use planning, landscape architecture, public participation and facilitation, and project management.

Mike Harvey, of Mussetter Engineering, Inc., is an internationally recognized expert in fluvial geomorphology. He completed a comprehensive sediment transport and channel stability analysis of the lower Feather River for ACOE in 1997. He is presently the principal geomorphologist for the team developing an ecosystem-functions model of Central Valley riverine and riparian habitats for ACOE.

VII. Compliance with standard terms and conditions
See attached Forms DI-2010 for DFG and JSA.

Certifications Regarding Debarment, Suspension and Other Responsibility Matters, Drug-Free Workplace Requirements and Lobbying

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used or use this form for certification and sign. (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

CHECK ☒ IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

CHECK ☐ IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

DI-2016
June 1996
(This form replaces DI-1993, DI-1994,
DI-1998, DI-1999 and DI-1997)

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about—
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will —
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification numbers(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted —
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

California Department of Fish and Game, Region II1701 Nimbus Road, Rancho Cordova, CA 95670Check X if there are workplaces on file that are not identified here.PART D: Certification Regarding Drug-Free Workplace RequirementsCHECK IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

DI-2010
June 1995
(This form replaces DI-1863, DI-1864,
DI-1865, DI-1866 and DI-1867)

PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND
THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT;
SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL
LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR
SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

Perry L. Hengesell

TYPED NAME AND TITLE

DATE June 30, 1998

01-2010
June 1998
(This form replaces 01-1962, 01-1964,
01-1965, 01-1966 and 01-1963)

**Certifications Regarding Debarment, Suspension and
Other Responsibility Matters, Drug-Free Workplace
Requirements and Lobbying**

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification. In all lower tier covered transactions and in all solicitations for lower tier covered transactions. See below for language to be used or use this form for certification and sign. (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

CHECK IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE

- (1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

CHECK IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

OI-2010
 June 1995
 (This form replaces OI-1993, OI-1994,
 OI-1995, OI-1996 and OI-1997)

CHECK ☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

- (a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
- (b) Establishing an ongoing drug-free awareness program to inform employees about—
 - (1) The dangers of drug abuse in the workplace;
 - (2) The grantee's policy of maintaining a drug-free workplace;
 - (3) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);
- (d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will —
 - (1) Abide by the terms of the statement; and
 - (2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;
- (e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;
- (f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted —
 - (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
 - (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;
- (g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a) (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Jones & Stokes Associates2600 V Street, Sacramento, CA 95818-1914Check ☐ if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK ☐ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL

Alternate II. (Grantees Who Are Individuals)

- (a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;
- (b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

01-2010
June 1996
(This form replaces 01-1963, 01-1964,
01-1965, 01-1966 and 01-1993)

PART E: Certification Regarding Lobbying
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS \$100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT; SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

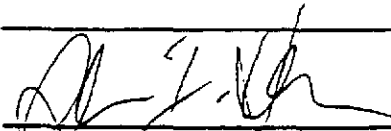
CHECK IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF \$150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING \$100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.



SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL

Albert I. Herson, President

TYPED NAME AND TITLE

DATE June 30, 1998

01-2010
June 1998
(This form replaces 01-1963, 01-1964,
01-1965, 01-1966 and 01-1967)